

Table 11. Nutrient recommendations for growing swine (as-fed basis)<sup>a, b</sup>

Type of diet	Starter 1 /transition <sup>c</sup>	Starter 2	Starter 3	Grower 1	Grower 2	Finisher 1	Finisher 2
Body wt, lb	8 to 13	13 to 25	25 to 45	45 to 80	80 to 130	130 to 190	190 to 250
Expected feed intake, lb/day <sup>d</sup>	.55	1.2	2.0	3.3	4.6	5.8	6.9
-----% of Diet-----							
Lysine, total	1.55	1.35	1.20	1.00	.85	.70	.55
Lysine, digestible	1.29	1.12	.99	.82	.68	.55	.41
Tryptophan	.28	.24	.22	.18	.15	.13	.10
Threonine	.99	.86	.77	.66	.56	.48	.37
Methionine	.40	.35	.31	.26	.22	.18	.14
Methionine+cystine	.88	.77	.68	.57	.49	.41	.32
Calcium	.90	.85	.75	.70	.60	.55	.50
Phosphorus, total	.77	.67	.62	.58	.51	.47	.43
Phosphorus, available	.56	.44	.34	.29	.22	.19	.16
-----Calculated Daily Intake, g-----							
Lysine, total	3.9	7.4	10.9	15.0	17.8	18.4	17.2
Lysine, digestible	3.2	6.1	9.0	12.2	14.2	14.5	13.0
Tryptophan	.7	1.3	2.0	2.7	3.2	3.3	3.1
Threonine	2.5	4.7	7.0	9.9	11.7	12.5	11.7
Methionine	1.0	1.9	2.8	3.9	4.6	4.8	4.5
Methionine+cystine	2.2	4.2	6.2	8.6	10.1	10.7	10.0
Calcium	2.3	4.6	6.8	10.5	12.5	14.5	15.7
Phosphorus, total	1.9	3.7	5.6	8.7	10.7	12.4	13.5
Phosphorus, available	1.4	2.4	3.1	4.3	4.6	5.0	5.0
-----Additions-----							
<b>Minerals</b>							
Salt, % <sup>e</sup>	0 to .4	0 to .4	.25 to .4	.25 to .4	.25 to .4	.25 to .4	.25 to .4
Copper, ppm	6 to 15	6 to 15	5 to 15	4 to 15	4 to 15	3 to 15	3 to 15
Iodine, ppm	.15 to .5	.15 to .5	.15 to .5	.15 to .5	.15 to .5	.15 to .5	.15 to .5
Iron, ppm	100 to 150	90 to 150	80 to 150	70 to 150	60 to 150	50 to 150	40 to 150
Manganese, ppm	4 to 30	3 to 30	3 to 30	3 to 30	2 to 30	2 to 30	2 to 30
Selenium, ppm <sup>f</sup>	.3	.3	.3	.3	.3	.3	.3
Zinc, ppm	100 to 150	90 to 150	80 to 150	70 to 150	60 to 150	50 to 150	50 to 150
<b>Vitamins</b>							
Vitamin A, IU/lb	1000 to 4000	900 to 4000	800 to 4000	700 to 4000	650 to 4000	600 to 4000	600 to 4000
Vitamin D <sub>3</sub> , IU/lb	100 to 400	90 to 400	80 to 400	70 to 400	70 to 400	70 to 400	70 to 400
Vitamin E, IU/lb	7.5 to 30	6 to 30	5 to 30	5 to 20	5 to 20	5 to 20	5 to 20
Vitamin K, mg/lb <sup>g</sup>	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3
Riboflavin, mg/lb	2 to 10	2 to 10	2 to 10	2 to 10	1 to 10	1 to 10	1 to 10
Niacin, mg/lb	10 to 50	7 to 50	6 to 50	5 to 50	4 to 50	4 to 50	3 to 50
Pantothenic acid, mg/lb	6 to 25	5 to 25	4 to 25	4 to 25	4 to 25	4 to 25	3 to 25
Choline, mg/lb <sup>h</sup>	0 to 100	0 to 100	0 to 100	0 to 100	0 to 100	0 to 100	0 to 100
Biotin, mg/lb	0	0	0	0	0	0	0
Vitamin B <sub>12</sub> , mg/lb	.01 to .02	.01 to .02	.01 to .02	.005 to .02	.003 to .02	.003 to .02	.002 to .02
Folic acid, mg/lb	0	0	0	0	0	0	0

<sup>a</sup>Assumes a mixture of medium lean gain barrows and gilts (.55 to .70 lb of fat-free lean/day from 45 to 250 lb). All diets are full-fed under thermoneutral conditions.

<sup>b</sup>Digestible and available nutrient levels are calculations based on a corn-soybean meal diet.

<sup>c</sup>Provide a total of 4 lb/pig (at least 3 lb after weaning) to pigs > 13 lb at weaning, but < 28 days of age.

<sup>d</sup>Average dietary ME density is 1.5 Mcal/lb.

<sup>e</sup>Adjust salt additions according to quantity of dried whey and plasma proteins included in the diet. Dietary sodium levels > 3000 ppm are not likely to improve performance.

<sup>f</sup>Maximum legal addition is .3 ppm.

<sup>g</sup>Menadione activity.

<sup>h</sup>Soybean meal is an excellent source of choline. Starting diets containing less than 100 lb soybean meal/ton should contain about 50 mg/lb of added choline.